Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Previously presented) A noise figure-measuring device comprising;

an optical spectrum analyzing section for preparing optical spectrum information of signal light from a light source; and

a noise figure calculating section for calculating, based on the optical spectrum information, a noise figure generated by an optical amplifier, the optical amplifier for amplifying the signal light from the light source at an appointed gain ratio, the appointed gain ratio determined by using a provisional ASE light level from the light source, the optical amplifier preparing an amplified light signal with the noise figure;

wherein the optical spectrum analyzing section prepares the optical spectrum information of the signal light from the light source and optical spectrum information of the amplified signal light.

2. (Previously presented) The noise figure-measuring device as set forth in Claim 1, wherein the noise figure calculating section multiplies the optical spectrum information of the light signal from the light source by a coefficient to prepare multiplied optical spectrum information, the coefficient calculated by subtracting the provisional ASE light level from a peak value of the amplified light source and dividing a difference by a peak value of the signal light; and

the noise figure calculating section subtracts the multiplied optical spectrum information from the optical spectrum information of the amplified signal light to prepare subtracted optical spectrum information.

3. (Original) The noise figure-measuring device as set forth in claim 2, wherein the noise figure calculating section removes or masks spectrum information of an appointed wavelength region in the subtracted optical spectrum information; and

the noise figure calculating section performs a spline interpolation using a spline curve for the wavelength region.

4. (Original) The noise figure-measuring device as set forth in claim 3, wherein the interpolation is performed by selecting data of an predetermined number of points from all points contained in the wavelength region.

5. (Original) The noise figure-measuring device as set forth in claim 3, wherein the noise figure calculating section performs a noise removing process by a moving average process for the subtracted optical spectrum information.

6. (Currently Amended) ~~A noise figure measuring device comprising;~~

~~an optical spectrum analyzing section for preparing optical spectrum information of signal light from a light source; and~~

~~a noise figure calculating section for calculating, based on the optical spectrum information, a noise figure generated by an optical amplifier, the optical amplifier for amplifying the signal light from the light source at an appointed gain ratio the optical amplifier preparing an amplified light signal with the noise figure;~~

~~wherein the optical spectrum analyzing section prepares the optical spectrum information of the signal light from the light source and optical spectrum information of the amplified signal light;~~

The noise figure measuring device of claim 1 wherein the optical spectrum information has been prepared from a composite light of a plurality of signal lights; and

the noise figure calculating section detects the number of composing signal lights and wavelengths, and calculates a noise figure generated by the optical amplifier for each of the signal light detected.

7. (Previously presented) A noise figure-measuring method comprising:

preparing optical spectrum information of appointed signal light;

preparing optical spectrum information of amplified signal light using a provisional ASE light level from the appointed signal light; and

calculating a noise figure contained in the amplified signal light based on the optical spectrum information of the appointed signal light and the amplified signal light.

8. (Previously presented) The noise figure-measuring method as set forth in claim 7, wherein the noise figure calculating step multiplies the optical spectrum information of the light signal from the light source by a coefficient to prepare multiplied optical spectrum information, the coefficient calculated by subtracting the provisional ASE light level from a peak value of the amplified signal light and dividing a difference by a peak value of the appointed signal light; and

the noise figure calculating step subtracts the multiplied optical spectrum information from the optical spectrum information of the amplified signal light to prepare a subtracted optical spectrum information.

9. (Original) The noise figure-measuring method as set forth in claim 8, wherein the noise figure calculating step removes or masks spectrum information of an appointed wavelength region in the subtracted optical spectrum information; and

the noise figure calculating step performs a spline interpolation using a spline curve for the wavelength region.

10. (Previously presented) The noise figure-measuring method as set forth in claim 9, wherein the interpolation is performed by selecting data of an predetermined number of points from all points contained in the wavelength region.

11. (Previously presented) The noise figure-measuring method as set forth in claim 9, wherein the noise figure calculating step performs a noise removing process by a moving average process for the subtracted optical spectrum information.

12. ~~A noise figure measuring method comprising:~~

~~preparing optical spectrum information of appointed signal light;~~

~~preparing optical spectrum information of amplified signal light; and~~

~~calculating a noise figure contained in the amplified signal light based on the optical spectrum information of the appointed signal light and the amplified signal light;~~

The noise figure measuring method of claim 7 wherein the optical spectrum information is prepared from a composite light of a plurality of signal lights; and

the noise figure calculating step detects the number of composing signal lights and wavelengths, and calculates a noise figure generated by the optical amplifier for each of the signal light detected.